

A LISTING OF THE CLAIMS

1. (Original) A high-frequency oscillation apparatus comprising:
 - an oscillator for oscillating at a specific frequency determined by a control voltage signal in a predetermined frequency modulation range;
 - a resonator coupled with a line transferring the oscillation signal of the oscillator, for resonating at a frequency out of the predetermined frequency modulation range;
 - a level detector coupled with the resonator, for detecting the resonant-energy level of the resonator; and
 - a control section for generating the control voltage signal according to the resonant-energy level detected by the level detector.
2. (Original) The high-frequency oscillation apparatus according to claim 1, wherein the line is a dielectric line comprising a dielectric strip sandwiched by electrically conductive planes.
3. (Original) The high-frequency oscillation apparatus according to claim 1, wherein the control section comprises:
 - an AD converter;
 - a storage section provided with a reference-voltage table and a reference-control-signal table;
 - a difference detection section; and
 - a control-signal compensation section, wherein

the reference-voltage table stores the relationship between a detected-signal level and an oscillation frequency,

the reference-control-signal table stores the relationship among output timing, an intended oscillation frequency, and a control-voltage-signal level for obtaining the intended oscillation frequency.

4. (Original) The high-frequency oscillation apparatus according to claim 1, wherein a resonant frequency of the resonator is set to a frequency higher than the frequency modulation range of the oscillator.

5. (Original) The high-frequency oscillation apparatus according to claim 1, wherein a resonant frequency of the resonator is set to a frequency lower than the frequency modulation range of the oscillator.

6. (Withdrawn) A radio apparatus comprising:
a high-frequency oscillation apparatus according Claim 1; and
a transmitter for transmitting the oscillation signal.

7. (Original) A radar comprising:
a transmitter, the transmitter comprising a high-frequency oscillation apparatus according to Claim 1; and
a receiver for receiving a signal emitted by the transmitter and reflected from an object.

8. (Original) A high-frequency oscillation apparatus comprising:

- an oscillator for oscillating at a specific frequency determined by a control voltage signal in a predetermined frequency modulation range;
- a first resonator coupled with a line transferring the oscillation signal of the oscillator, for resonating at a frequency higher than the center of the predetermined frequency modulation range;
- a second resonator coupled with the line transferring the oscillation signal of the oscillator, for resonating at a frequency lower than the center of the predetermined frequency modulation range;
- a first level detector coupled with the first resonator, for detecting the resonant-energy level of the first resonator;
- a second level detector coupled with the second resonator, for detecting the resonant-energy level of the second resonator; and
- a control section for generating the control voltage signal according to the difference between the resonant-energy levels detected by the first and second level detection means.

9. (Original) The high-frequency oscillation apparatus according to claim 8, wherein the line is a dielectric line comprising a dielectric strip sandwiched by electrically conductive planes.

10. (Original) The high-frequency oscillation apparatus according to claim 8, wherein the control section comprises:

- a first AD converter coupled to the first level detector;
- a second AD converter coupled to the second level detector;

a storage section provided with a reference-potential-difference table and a reference-control-signal table;

a difference detection section; and

a control-signal compensation section, wherein

the reference-potential difference table stores the relationship between an oscillation frequency and the difference between the resonant-energy level of the first resonator and the resonant-energy level of the second resonator,

the reference-control-signal table stores the relationship among output timing, an intended oscillation frequency, and a control-voltage-signal level for obtaining the intended oscillation frequency.

11. (Original) The high-frequency oscillation apparatus according to claim 8, wherein a resonant frequency of the first resonator is set to a frequency higher than the frequency modulation range of the oscillator, and wherein a resonant frequency of the second resonator is set to a frequency lower than the frequency modulation range of the oscillator.

12. (Withdrawn) A radio apparatus comprising:

a high-frequency oscillation apparatus according to Claim 8; and

a transmitter for transmitting the oscillation signal.

13. (Original) A radar comprising:

a transmitter, the transmitter comprising a high-frequency oscillation apparatus according to Claim 8; and

a receiver for receiving a signal emitted by the transmitter and reflected from an object.

14. (Original) A high-frequency oscillation method comprising:
outputting an oscillation signal;
transferring the oscillation signal to a resonator so as to excite the resonator;
outputting a predetermined signal from the resonator, the predetermined signal
being determined according to a frequency of the oscillation signal;
generating a control voltage signal according to the predetermined signal; and
using the control voltage signal for compensation of the oscillation signal.

15. (Original) The high-frequency oscillation method according to claim 14,
wherein compensation of the oscillation frequency comprises:
changing the control voltage signal in a rectangular-wave manner within a
predetermined frequency range over time so as to change the frequency of the oscillation
signal.

16. (Original) The high-frequency oscillation method according to claim 14,
wherein the frequency of the oscillation signal is modulated from a predetermined center
frequency if the difference between a specified amount of frequency modulation and an
actual amount of frequency modulation is detected for compensation of the oscillation
signal.

17. (Original) The high-frequency oscillation method according to claim 14,
wherein a resonant frequency of the resonator is set to a frequency higher than a frequency
modulation range of the oscillation signal.

18. (Original) The high-frequency oscillation method according to claim 14, wherein a resonant frequency of the resonator is set to a frequency lower than a frequency modulation range of the oscillation signal.